



# Effect of Location and Diet on Performance and Profitability of Finishing Mississippi Beef Steers After Winter Grazing



**MAFES**

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# Effect of Location and Diet on Performance and Profitability of Finishing Mississippi Beef Steers After Winter Grazing

Finishing cattle to slaughter weight is rarely considered as an alternative by producers in Mississippi. However, changes in costs and returns associated with changing feed costs and (or) cattle prices could make cattle finishing a plausible alternative for Mississippi producers.

The two generally accepted finishing options that Mississippi producers can use are (1) build the

necessary facilities and finish cattle on a grain or silage ration or (2) send the cattle to a feedlot in the Southwest for custom finishing.

Comparing the costs and returns associated with finishing cattle in Mississippi with those of custom finishing in the Southwest requires data for differences in performance due to environmental effects and diets fed at different locations and the effects of differences in costs of

feed, transportation and other inputs associated with finishing cattle. The purpose of this study was to provide information about the effect of location and diet on the performance of finishing Mississippi steers after winter grazing and to present an economic analysis that relates costs and returns of finishing cattle to location and diet.

## Description of Experiment

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This experiment involved a cooperative effort of Mississippi State University, Texas A & M University and Texas Tech University. Steers were fed at three locations--two in Mississippi and one in Texas.

The two Mississippi locations (MAFES Brown Loam Branch at Raymond and MAFES South Mississippi Branch at Poplarville) have significantly different feedlot facilities and represent different areas within the South Mississippi winter grazing region. The Brown Loam feeding facility is an open lot with unsheltered concrete feeding bunks along one side. Trees within or adjacent to the pens afford some shade. The South Mississippi feedlot facility has a concrete floor and is a completely covered facility. Pens are cleaned via a sloped floor-water flush arrangement.

The Texas Tech University Experiment Station at Amarillo Texas was chosen to represent the Southwest custom feedlot operation because its facilities are similar to many of the commercial feedlots in the region (open lots with unsheltered fence-line feed troughs).

Personnel from the Texas A&M Research and Extension Center helped coordinate the experiment, and personnel at the Texas Tech Research Center managed the steers fed in Texas and collected the feed, weight gain and carcass data.

In May 1980, 1981 and 1982, 120 steers (60 steers from the Brown Loam Branch and 60 from the South Mississippi Branch) were sorted by breed and weight and randomly assigned to one of five treatments. Steers from the Brown Loam Branch were Angus x Hereford crossbred calves that had been purchased in the fall and backgrounded on winter grazing systems. Steers from the South Mississippi Branch were born in late winter, weaned in October and backgrounded on wintergrazing systems. South Mississippi steers were produced from straight Hereford, Hereford x Barzona or Hereford x Beefmaster dams. Sires were Angus (1979); Angus, Brangus or Simmental (1980) and Brangus or Beefmaster (1981).

Steers were weighed individually, identified with ear tags, treated for internal parasites (TBZ paste®) and

implanted with Ralgro® before confinement in the feedlots in Mississippi or shipment to Texas. Steers shipped to Texas were reweighed upon arrival at the feedlot.

A corn-cottonseed hull finishing diet was fed to three groups of steers, one group at each of the two Mississippi locations and one in Texas. A corn-silage finishing diet (considered by researchers to be the most economical Mississippi feedlot diet) was fed to one group of steers at the South Mississippi Branch. A milo-cottonseed hull finishing diet (considered by Texas researchers to be the most economical Texas feedlot diet) was fed to one group of steers at the Texas Tech Experiment Station.

Compositions of the three diets are presented in Table 1. Steers in each of the five groups were fed until they reached an average of about 1,100 pounds unshrunk weight. At the close of each feeding trial the steers were sold on a carcass yield and weight basis to local packers.

## Data

Average weights of steers entering the feedlots ranged from 749 to 767 pounds. Assigned costs of steers at the beginning of feeding were based on market prices, as established from late May quotations on comparable animals each year. Interest at 15% (approximately the prevailing rate in each of the three years of the experiment) was charged on the initial cost assigned to the animals, and on feed cost. Five treatment groups were fed in each of three years in five "feeding periods" ranging in length from 11 to 36 days.<sup>1</sup> In 1981, steers were fed over only four feeding periods.

The prevailing bulk price of each feed ingredient at each location at the beginning of each feeding period was used to calculate diet cost/lb. The cost/lb times average daily consumption per head times the number of days in the feeding period yielded estimated diet cost per head for a specific lot over a specific feeding period.

Estimates of other costs per head for feeding cattle in Mississippi, as taken from a recent study (1), were utilities and fuel, \$2.31; labor, \$14.07 (4.2 hours @ \$3.35); veterinary and medicine, \$5.43; transportation and marketing, \$7.50; and death loss, 1% of purchase price. Steers fed in Texas were charged transportation, averaging \$31.62 per head; veterinary and medicine, \$3.00; death loss, 2% of purchase price and service and facility cost, \$15.00/ton of feed.

Table 1. Composition of finishing diets fed steers in Mississippi and Texas, as-fed basis, 1980-1982

Item	Diet		
	Corn	Milo	Corn Silage <sup>a/</sup>
	-----percent-----		
Corn, cracked	73.0	--	7.1
Milo, steamflaked	--	77.3	--
Corn silage	--	--	87.7
Cottonseed hulls	15.0	10.0	--
Cottonseed meal	6.0	.7	4.6
Molasses	--	6.0	--
Supplement			
Alfalfa, dehy	3.4	3.61	
Urea	.37	.37	
Polyphos	.17	.17	
Calcium carbonate	.60	.60	
Salt	.50	.50	
Ammonium sulfate	.36	.36	
Vitamin A	.0075	.0075	b/
Trace mineral	.01	.01	
Sulfur	.02	.02	
Potassium chloride	.57	.57	
Rumensin	c/	c/	d/
TM Salt			.2
Dicalcium phosphate			.1
Ground limestone			.3
Calculated Content:			
Dry matter (%)	89.5	88.4	45.0
Crude protein (% DM)	12.1	11.9	12.0
DE (Kcal/lb DM)	1428	1380	1440

<sup>a/</sup>Based silage containing 8.02% CP (DM basis).

<sup>b/</sup>200,000 IU/hd/day.

<sup>c/</sup>500 grams/ton.

<sup>d/</sup>200 mg/hd/day.

## Results

Differences in size and quality of steers entering a feedlot or in the feeding program at that lot over the three-year life of the project were only minor, and results are reported on a three-year average basis.

(Annual data on feeding programs are available in appendices to this report).

Three-year average performance rates for steers at all locations are presented in Table 2. Inspection of

average daily gain data---from initial full weight to final shrunk weight---reveals significantly higher rates of gain in both Texas feedlots than in either of the two Mississippi feedlots. In Mississippi, steers

<sup>1</sup>Length of a feeding period was generally about 28 days but varied in the initial or last periods depending on changes in diet composition or animal size and remaining time in the feedlot.



fed at the Brown Loam Branch had a significantly higher rate of gain than did those fed at the South Mississippi Branch. Feed conversion ratios did not differ appreciably except for steers fed the corn silage diet at the South Mississippi Branch, which reflected the higher water content of silage. More detailed data appear in appendix A.

Most of the significant differences in carcass characteristics were in carcass weight and dressing percentage, with steers fed at the South Mississippi Branch producing significantly lower dressing percentages than those finished at the Texas Station or the Brown Loam Branch (Table 3). There were no significant differences among marbling scores or USDA quality grades of steers fed the different diets, or at different

locations. Carcass yield grade of animals fed milo (in Texas) was slightly but not significantly better than from any other feeding.

Returns were calculated from cost, performance and sale data. A summary of performance, sale prices and carcass values is presented in Table 4. Feed costs per pound of gain ranged from \$.388 for steers fed corn silage in South Mississippi to \$.621 for steers fed corn there (Table 5). Costs of gain were almost identical for steers fed corn at the Brown Loam Branch and those fed milo in Texas. Steers fed corn in Texas had feed costs per pound of gain that were slightly less than those for steers fed corn at the South Mississippi Branch.

Total cost per pound of gain (Table 5) includes all costs (i.e.,

interest, transportation, facility charges, etc.). The corn-silage diet at the South Mississippi Branch afforded the lowest overall cost per pound of gain (\$.697), and the corn diet at that station was the highest (\$.871).

A summary of income and expenses (Table 6) compiled from three-year average budgets (Appendix B) reveals not only that all trials were not profitable but also that none even recovered direct (operating) expenses. If only direct costs are considered, per head losses were least (\$17.79) in the corn silage feeding trial at the South Mississippi Branch and largest (\$84.43) in the corn-feeding option at that station. When all costs are considered, the two programs at the South Mississippi Branch maintain their

Table 2. Performance data, by diet, for steers finished in Mississippi and Texas, three-year averages, 1980-1982

Item	Unit	Diet and Location				
		Brown Loam	Corn South MS	Texas	Milo Texas	Corn Silage South MS
Initial full wt.	Lb	767.8 <sup>a/</sup>	753.0 <sup>b/</sup>	762.6 <sup>a/</sup>	767.5 <sup>a/</sup>	749.7 <sup>b/</sup>
Initial shrink	Lb	40.5	37.6	73.4	76.0	35.7
Final shrunk wt.	Lb	1081.7 <sup>a/</sup>	1055.1 <sup>b/</sup>	1084.6 <sup>a/</sup>	1089.4 <sup>a/</sup>	1062.0 <sup>b/</sup>
Final shrink	Lb	44.5	30.5	41.9	36.1	32.1
Gain	Lb	313.9	302.1	322.0	323.9	312.3
Feeding period	Days	123	132	116	116	139
Feed consumption per head	Lb	2906.2	3034.8	2895.9	2944.3	6845.6
Average daily gain (Initial full wt. to final shrunk wt.)	Lb	2.55 <sup>b/</sup>	2.31 <sup>c/</sup>	2.78 <sup>a/</sup>	2.78 <sup>a/</sup>	2.25 <sup>c/</sup>
Feed conversion (lb. feed/Lb gain)	Ratio	9.26	10.04	8.99	9.09	21.92

abc/ Any two means on same line which do not share a letter in common differ significantly at the 5% level of probability as judged by Fisher's protected LSD.

Table 3. Carcass data, by diet, for steers finished in Mississippi and Texas, three-year averages, 1980-1982

Item	Unit	Diet and Location					
		Brown Loam	Corn		Texas	Milo Texas	Corn Silage South MS
			South MS				
Carcass wt.	Lb.	656.5 <sup>e</sup>	644.8 <sup>f</sup>	674.3 <sup>d</sup>	669.0 <sup>d</sup>	638.1 <sup>f</sup>	
Dressing	%	61.2 <sup>dg</sup>	60.3 <sup>e</sup>	62.0 <sup>df</sup>	61.4 <sup>d</sup>	60.1 <sup>e</sup>	
Fat thickness	In. <u>1/</u>	.56 <sup>d</sup>	.51 <sup>ef</sup>	.47 <sup>f</sup>	.41 <sup>g</sup>	.55 <sup>de</sup>	
KHP Fat	%	2.5 <sup>d</sup>	2.2 <sup>e</sup>	2.0 <sup>f</sup>	1.8 <sup>f</sup>	2.4 <sup>d</sup>	
Loin eye area	Sq. In.	11.76 <sup>eg</sup>	11.39 <sup>fg</sup>	11.79 <sup>e</sup>	12.24 <sup>d</sup>	11.37 <sup>f</sup>	
Yield grade	--	3.1 <sup>d</sup>	3.0 <sup>d</sup>	3.0 <sup>d</sup>	2.7 <sup>e</sup>	3.1 <sup>d</sup>	
Marble score	<u>2/</u>	6.7 <sup>d</sup>	6.6 <sup>d</sup>	6.3 <sup>d</sup>	6.4 <sup>d</sup>	6.7 <sup>d</sup>	
USDA quality grade	<u>3/</u>	11.2 <sup>d</sup>	11.0 <sup>d</sup>	11.0 <sup>d</sup>	11.1 <sup>d</sup>	11.2 <sup>d</sup>	

1/ Measured at 12th rib.

2/ 6 = slight; 7 = small; etc.

3/ 11 = high good; 12 = low choice, etc.

<sup>defg</sup> Any two means on the same line which do not share a letter in common differ significantly at the 5% level of probability as judged by Fisher's protected LSD.

Table 4. Performance, sale prices and carcass values for steers finished in Mississippi and Texas, three-year averages, 1980-1982

Item	Unit	Diet and Location					
		Brown Loam	Corn		Texas	Milo Texas	Corn Silage South MS
			South MS				
Initial full wt.	Lb	767.8	753.0	762.6	767.5	749.7	
Final shrunk wt.	Lb	1081.7	1055.1	1084.6	1089.6	1060.0	
Gain	Lb	313.9	302.1	322.0	322.1	310.3	
Live wt. sale Price (calculated)	Dol/Cwt	62.00	60.60	62.00	61.40	59.70	
Carcass sale price (actual)	Dol/Cwt	98.42	99.22	99.77	100.06	99.78	
Carcass value	Dol	670.65	639.39	672.45	669.01	633.82	

Table 5. Summary costs/lb of gain from initial full weight to final shrunk weight for steers finished in Mississippi and Texas, three-year averages, 1980-1982

Item	Unit	Diet and Location				
		Brown Loam	Corn South MS	Texas	Milo Texas	Corn Silage South MS
Feed cost/head	Dol	174.82	187.64	191.88 <sup>1/</sup>	177.72 <sup>1/</sup>	120.42
Feed cost/lb gain	Dol	.557	.621	.596	.552	.388
Other direct cost/lb Gain	Dol	.198	.205	.235	.234	.189
Facility cost/lb gain	Dol	.075	.109	0	0	.120
Total cost/lb gain	Dol	.830	.871	.856	.830	.697

<sup>1/</sup>Includes a \$15/ton management charge.

Table 6. Summary of income and expenses per head, by diet and location, for steers finished Mississippi and Texas, three-year averages, 1980-1982

		Diet and Location				
		Brown Loam	Corn South MS	Texas	Milo Texas	Corn Silage South MS
Income	670.65	639.39	672.45	669.01	633.82	
Direct expenses	720.67	723.82	744.57	736.33	651.61	
Net returns over direct expenses	-50.02	-84.43	-72.12	-67.32	-17.79	
Facility	23.51	32.80	<sup>1/</sup>	<sup>1/</sup>	37.31	
Net returns over all expenses	-73.53	-117.23	-72.12	-67.32	-55.10	

<sup>1/</sup>Includes in a \$15 per ton of feed charge for "service and facility costs" and listed among other direct expenses.

relative loss positions among all trials--least (\$55.10) in the silage-feeding trial and largest (\$117.23) in the corn-feeding program.

Breakeven prices; i.e., prices at which steers finished at specified costs must sell if finishers are to recover all costs, were lowest (\$64.99/cwt) for steers fed corn silage at the South Mississippi

Branch, highest (\$71.71/cwt) for those fed corn at that station (Table 7). These breakeven prices are based on the established purchase prices and other costs as listed in the budget tables (Appendix B).

Appendix C contains an estimate of the construction and ownership costs of a dirt feedlot similar to the Brown Loam Branch facility and a

slatted floor facility that should produce results similar to those at the South Mississippi Branch facility. These tables are included to indicate the general complexity of the feedlot equipment involved and the likely magnitude of investment should commercial feeding be under-taken in Mississippi.

Table 7. Breakeven sale prices per hundredweight for steers finished in Mississippi and Texas, by diet and location, three-year averages, 1980-1982

Item	Diet and Location				
	Brown Loam	Corn South MS	Texas	Milo Texas	Corn Silage South MS
Calculated live weight sale price	62.00	60.60	62.00	61.40	59.70
Breakeven sale price <sup>a/</sup> above direct expenses	66.62	68.60	68.64	67.58	61.47
Breakeven sale price <sup>a/</sup> above all expenses	68.79	71.71	68.64	67.58	64.99

<sup>a/</sup> Purchase price of feeder steers averaged \$63/cwt. Sensitivity analysis indicates that each \$1/cwt increase (decrease) in feeder purchase price adds (subtracts) \$.75/cwt in breakeven sale price.

## Summary

The objective of this study was to investigate differences between finishing wintergrazed steers in Mississippi and the High Plains of Texas. Three locations were involved in the study, two in Mississippi and one in Texas. The three diets fed were a corn-based diet at each location, a milo-based diet in Texas and a corn silage diet at one Mississippi location. Three feeding trials were conducted at each location in 1980, 1981, and 1982.

Steers fed in Texas gained slightly faster than those fed in Mississippi, as evidenced by average daily gain. Characteristics that determine USDA quality grades and yield grades showed little or no difference among carcasses of steers fed in Texas or Mississippi.

Economic comparison of the five groups indicated substantially lower costs per pound of gain for the cattle fed corn silage in Mississippi than for those in the other trials. Substantial negative net returns above all costs for the three-year period were shown for all five groups. Steers fed corn silage in South Mississippi had the lowest negative net return above all costs with \$-55.10. The two groups of steers fed in Texas followed with net returns of \$-67.32 and \$-72.12. Steers fed corn at the Brown Loam Branch showed net returns of \$73.53 and those fed corn at the South Mississippi Branch had a net return of \$-117.23.

None of the net returns appear appealing to potential cattle feeders. Of course, these returns are based on a particular set of steer prices, feed costs and prices of other inputs. As these prices and costs change, the net returns necessarily will change. Hence, new estimates of net returns must be made in every situation, and the information herein should provide a general guide to the elements that must be considered in making those estimates. Price levels of finished steers were not sufficiently high to offset the costs encountered during the three-month feeding periods in each of the three years of this study.

## Reference

- Tyner, Fred H. and Thomas D. Scroggins, "Investment, Operating Costs and Estimated Returns for 500 and 1000 Head Beef Cattle Feedlots, Mississippi, 1979." Mississippi Agricultural and Forestry Experiment Station Bulletin 888, February 1981.

**Appendix A:**  
**Feed and Feeding**  
**Information**

Appendix A, Table 1. Prices for feed ingredients, composition of finishing diets and cost per ton for finishing diets for five feeding periods, 1980

Ingredients	May 28		July 1		July 30		August 27		October 1						
	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.					
	TX	TX	TX	TX	TX	TX	TX	TX	TX	TX					
	Ingredient Prices														
	(\$/ton)														
Corn	106.07	106.07	104.00	111.61	111.61	113.28	125.71	125.71	123.28	131.78	131.78	126.14	126.16	126.16	127.93
Cottonseed Hulls	40	40	40.40	40	40	41.00	40	40	47	40	40	51	40	40	51
Cottonseed Meal	121.25	125	145	142.50	150.00	147	169.25	180.00	177	205.00	205.00	195	202.50	205.00	195
Supplement	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
Milo			95.80			102.61			113.80			116.20			120.80
Molasses			115			115			115			115			115
Corn Silage	18			18			18		18			18			18
CORN FINISHING DIET											Cost of Diet				
											(\$/ton)				
Corn	77.43	77.43	75.92	81.48	81.48	82.69	91.77	91.77	89.99	96.20	96.20	92.08	92.10	92.10	93.39
Cottonseed Hulls	6.00	6.00	6.06	6.00	6.00	6.15	6.00	6.00	7.05	6.00	6.00	7.65	6.00	6.00	7.65
Cottonseed Meal	7.28	7.50	8.70	8.55	9.00	8.82	10.16	10.80	10.62	12.30	12.30	11.70	12.15	12.30	11.70
Supplement	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64
Total + \$15 yardage feed	99.35	99.57	99.32	104.67	105.12	106.30	116.57	117.21	116.30	123.14	123.14	120.07	118.89	118.74	121.38
Total for Texas			114.31			121.30			131.30			135.07			136.38

(continued)

Appendix A, Table 1. (Continued)

Ingredients	May 28		July 1		July 30		August 27		October 1	
	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX
CORN SILAGE FINISHING DIET										
Corn	7.1	7.53	7.92	8.93	9.36	8.96				
Cottonseed Meal	4.6	5.58	6.56	7.78	9.43	9.32				
Corn Silage	87.7	15.79	15.79	15.79	15.79	15.79				
TM Salt (\$20/ton)	.2	.24	.24	.24	.24	.24				
Dicalcium Phosphate (\$340/ton)	.1	.34	.34	.34	.34	.34				
Ground Limestone (\$60/ton)	.3	.18	.18	.18	.18	.18				
Total		29.66	31.03	33.26	35.34	34.83				
----- (doll/ton) -----										
MILO FINISHING DIET										
Milo	71.4	68.40	73.26	81.25	82.97	86.25				
Cottonseed Hulls	15	6.06	6.15	7.05	7.65	7.65				
Cottonseed Meal	6	8.70	8.82	10.62	11.70	11.70				
Molasses	1.6	1.84	1.84	1.84	1.84	1.84				
Supplement	6	8.64	8.64	8.64	8.64	8.64				
Total		93.64	98.71	109.40	112.80	116.08				
+ \$15 yardage fee		15	15	15	15	15				
Total for Texas		108.64	113.71	124.40	127.80	131.08				

a/ MAFES South Mississippi Branch

b/ MAFES Brown Loam Branch

Appendix A. Table 2. Number of days in feeding period, average daily feed consumption, pounds of feed fed and feed cost, by diet and location, 1980

Diet	Location	Number of Days in Feeding Period	Average Daily Feed Consumption	Pounds of Feed Fed	Feed Cost	Total Cost
		days	pounds/head/day	pounds	\$/ton	\$/head
Corn Diet	MAFES South Mississippi Branch	28	21.37	598.36	99.35	29.72
		28	22.66	634.48	104.67	33.21
		28	25.11	703.08	116.57	40.98
		28	27.38	766.64	123.14	47.20
		12	25.00	300.00	118.89	17.83
						<u>168.94</u>
Corn Diet	MAFES Brown Loam Branch	29	25.60	742.40	99.57	36.96
		34	24.74	841.16	105.12	44.21
		23	25.10	577.30	117.21	33.83
		28	25.44	712.32	123.14	43.86
		11	25.96	285.56	118.74	16.95
						<u>175.81</u>
Corn Diet	Amarillo, Texas	28	21.95	614.6	114.32	35.13
		28	21.42	599.76	121.30	36.38
		36	26.62	958.32	131.30	62.92
		20	22.92	445.8	135.07	30.11
		13	18.57	241.41	136.38	16.46
						<u>181.00</u>
Corn Silage Diet	MAFES South Mississippi Branch	28	44.94	1255.52	29.66	18.62
		28	53.44	1496.32	31.03	23.22
		28	53.86	1508.08	33.26	25.08
		28	56.37	1578.36	35.34	27.89
		33	52.90	1745.70	34.83	30.40
						<u>125.21</u>
					Rumensin	+ 7.43
					Vitamin ADE	<u>134.18</u>
Milo Diet	Amarillo, Texas	28	25.85	723.80	108.64	39.32
		28	27.39	766.92	113.71	43.60
		36	26.46	952.56	124.40	59.25
		20	23.07	461.40	127.80	29.48
		13	19.89	258.57	131.08	16.95
						<u>188.60</u>



Appendix A, Table 3. Prices for feed ingredients, composition of finishing diets and cost per ton for finishing diets for five feeding periods, 1981

Ingredients	May 29			July 2			July 31			August 28			September 25		
	S. M. Exp. Sta.	B. L. Exp. Sta.	TX	S. M. Exp. Sta.	B. L. Exp. Sta.	TX	S. M. Exp. Sta.	B. L. Exp. Sta.	TX	S. M. Exp. Sta.	B. L. Exp. Sta.	TX	S. M. Exp. Sta.	B. L. Exp. Sta.	TX
Corn	140.07	140.07	130.07	129.71	129.71	128.28	135.45	135.45	129.54	119.36	119.36	112.04	114.00	114.00	--
Cottonseed Hulls	151.00	151.00	113.50	102.00	102.00	108.50	118.00	118.00	103.50	121.00	121.00	98.50	113.00	113.00	--
Cottonseed Meal	200.75	209.75	196.00	201.00	201.00	186.00	202.00	202.00	183.50	196.00	196.00	166.00	181.00	181.00	--
Supplement	197.58	197.58	189.80	197.58	197.58	189.80	197.58	197.58	189.80	197.58	197.58	189.80	197.58	197.58	--
Milo			110.00			115.70			114.80			97.30			--
Molasses			112.18			112.18			96.13			96.13			--
Corn Silage	18.00			18.00			18.00			18.00			18.00		--
-----cost (dol)-----															
CORN FINISHING DIET															
Corn	73	102.25	94.95	94.68	94.68	93.64	98.88	98.88	94.55	87.13	87.13	81.79	83.22	83.22	--
Cottonseed Hulls	15	22.65	17.02	15.30	15.30	16.27	17.70	17.70	15.52	18.15	18.15	14.78	16.95	16.95	--
Cottonseed Meal	6	12.04	11.76	12.06	12.06	11.16	12.12	12.12	11.81	11.76	11.76	9.96	10.86	10.86	--
Supplement	6	11.85	11.39	11.85	11.85	11.39	11.85	11.85	11.39	11.85	11.85	11.39	11.85	11.85	--
Total		148.79	135.12	137.89	137.89	132.46	140.55	140.55	132.48	128.89	128.89	117.92	122.88	122.88	--
+ \$15 yardage feed			15.00			15.00			15.00			15.00			--
Total for Texas			150.12			147.46			147.48			132.92			--

(continued)

Appendix A, Table 3. (Continued)

Ingredients	May 29		July 2		July 31		August 28		September 25	
	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.
CORN SILAGE										
FINISHING										
DIET										
	Percent of Ration									
Corn	7.1	9.94	9.21	9.62	8.47	8.09				
Cottonseed Meal	4.6	9.23	9.25	9.29	9.02	8.32				
Corn Silage	87.7	15.78	15.78	15.78	15.78	15.78				
TM Salt (\$31/ton)	.2	.06	.06	.06	.06	.06				
Dicalcium Phosphate (\$305/ton)	.1	.30	.30	.30	.30	.30				
Ground Limestone (\$47/ton)	.3	.14	.14	.14	.14	.14				
Total		35.45	34.74	35.19	33.77	32.69				
MILK FINISHING DIET	Percent of Ration									
Milo	77.3	85.03	89.43	88.74	75.21	--				
Cottonseed Hulls	10	11.35	10.85	10.35	9.85	--				
Cottonseed Meal	.7	1.37	1.30	1.28	1.16	--				
Molasses	6.0	6.73	6.73	5.77	5.77	--				
Supplement	6.0	11.34	11.38	11.38	11.38	--				
Total + \$15 yardage feed		115.86	119.69	117.52	103.37	--				
Total for Texas		15.00	15.00	15.00	15.00	--				
		130.86	134.69	132.52	118.37	--				

a/ MAFES South Mississippi Branch

b/ MAFES Brown Loam Branch

Appendix A, Table 4. Number of days in feeding period, average daily feed consumption, pounds of feed fed and feed cost, by diet and location, 1981

Diet	Location	Number of Days in Feeding Period	Average Daily Feed Consumption	Pounds of Feed Fed	Feed Cost	Total Cost
Corn	MAFES South Mississippi Branch	28	24.15	676.25	148.79	50.31
		28	21.55	603.38	137.89	46.60
		28	23.44	656.25	140.55	46.11
		28	21.95	614.63	128.89	39.61
		13	19.23	250.00	122.88	15.36
						197.99
Corn	MAFES Brown Loam Branch	31	21.27	659.37	148.79	47.56
		28	22.58	632.2	137.89	43.58
		30	23.18	695.4	140.55	48.87
		3	26.25	78.75	128.89	5.07
Corn	Amarillo, Texas	33	21.33	704.17	150.12	52.85
		26	25.96	675.00	147.46	49.77
		28	25.35	709.67	147.48	52.33
		14	25.31	354.35	132.92	23.55
Corn	MAFES South Mississippi Branch	28	42.27	1183.38	35.45	20.97
		28	46.19	1293.38	34.74	22.46
		28	48.51	1358.13	35.19	23.89
		28	50.85	1423.75	33.77	24.04
		13	52.33	680.38	32.69	11.12
					102.48	
				Rumensin + 7.43 Vitamin ADE	109.91	
Milo	Amarillo, Texas	33	21.33	704.17	130.86	46.07
		26	23.37	607.92	134.69	40.94
		28	25.95	726.62	132.52	48.14
		14	23.64	331.00	118.37	19.59
						154.74

Appendix A, Table 5. Prices for feed ingredients, composition of finishing diets and cost per ton for finishing diets for five feeding periods, 1982

Ingredients	June 2		June 30		July 28		August 25		September 22						
	S. M. Exp. Sta.	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX	S. M. Exp. Sta. TX	B. L. Exp. Sta. TX					
Corn	125.35	140.07	119.64	119.64	119.64	120.35	115.00	115.00	117.67	111.43	111.43	106.42	104.29	104.29	100.18
Cottonseed Hulls	70.00	70.00	19.00	70.00	70.00	31.00	70.00	70.00	33.60	70.00	20.00	31.40	70.00	70.00	33.60
Cottonseed Meal	157.50	157.50	133.40	175.00	175.00	146.00	182.50	182.50	157.00	180.00	180.00	146.00	175.00	175.00	158.60
Supplement	181.20	181.20	158.20	181.20	181.20	158.20	181.20	181.20	158.20	181.20	181.20	158.20	181.20	181.20	158.20
Milo			106.20			105.50			103.90			94.20			91.00
Molasses			78.20			78.20			76.20			76.20			76.20
Corn Silage	18.00			18.00			18.00			18.00			18.00		
CORN FINISHING DIET															
Corn	73	91.62	87.34	87.34	87.34	87.88	83.95	83.95	85.90	81.34	81.34	77.69	76.13	74.67	73.58
Cottonseed Hulls	15	10.50	2.85	10.50	10.50	4.65	10.50	10.50	5.04	10.50	10.50	4.71	10.50	10.50	5.04
Cottonseed Meal	6	9.45	8.02	10.50	10.50	8.76	10.95	10.95	9.42	10.80	10.80	8.76	10.50	10.50	9.52
Supplement	6	10.87	9.49	10.87	9.49	9.49	10.89	9.49	9.49	10.87	9.49	9.49	10.87	10.98	9.49
Total + \$15 yardage feed Total for Texas		122.44	107.70	119.21	119.21	110.78	116.27	116.27	109.85	112.71	112.71	100.65	108.00	108.00	97.63
			15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
			122.70	122.70	122.70	125.78	125.78	125.78	124.85	124.85	124.85	115.65	115.65	112.63	112.63

(continued)

Appendix A, Table 5. (Continued)

Ingredients	May 29		July 2		July 31		August 28		September 25	
	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.	S. M. Exp. Sta.	B. L. Exp. Sta.
	TX	TX	TX	TX	TX	TX	TX	TX	TX	TX
	-----cost (do)-----									
CORN SILAGE	7.1	8.90	8.49	8.17	8.17	7.91	7.40			
FINISHING	4.6	7.25	8.05	8.39	8.39	8.28	8.05			
DIET	87.7	15.78	15.78	15.78	15.78	15.78	15.78			
Corn	.2	.08	.08	.08	.08	.08	.08			
Cottonseed	.1	.42	.42	.42	.42	.42	.42			
Meal	.3	.27	.27	.27	.27	.27	.21			
Corn Silage										
TM Salt (\$40/ton)										
Dicalcium Phosphate (\$418/ton)										
Ground Limestone (\$89.60/ton)										
Rumensin + Vitade										
Total	32.77		33.16	33.18	33.18	32.81	32.01			
MILK FINISHING DIET										
Milo	77.3	82.09	81.55	80.31	80.31	72.82	70.34			
Cottonseed Hulls	10	1.90	3.1	3.36	3.36	3.14	3.36			
Cottonseed Meal	.7	.94	1.02	1.10	1.10	1.02	1.11			
Molasses	6.0	4.96	4.96	4.96	4.96	4.96	4.96			
Supplement	6.0	9.49	9.49	9.49	9.49	9.49	9.49			
Total + \$15 yardage feed	99.38	99.38	100.12	99.22	99.22	91.43	89.26			
Total for Texas	114.38	114.38	115.12	114.22	114.22	106.43	104.26			

a/ MAFES South Mississippi Branch

b/ MAFES Brown Loan Branch

Appendix A, Table 6. Number of days in feeding period, average daily feed consumption, pounds of feed fed and feed cost, by diet and location, 1982

Diet	Location	Number of Days in Feeding Period	Average Daily Feed Consumption		Pounds of Feed Fed	Feed Cost	Total Cost
			days	pounds/head/day			
Corn	MAFES South Mississippi Branch	28	18.22	510.1	122.44	31.23	
		29	22.51	652.8	119.21	38.91	
		27	25.63	692.0	116.27	40.23	
		28	25.15	704.2	112.71	39.69	
		34	24.48	832.3	108.00	44.93	
						195.99	
Corn	MAFES Brown Loam Branch	28	26.65	746.2	122.44	45.68	
		28	27.86	780.1	119.21	46.50	
		28	28.17	788.8	116.27	45.86	
		28	28.18	789.0	112.71	44.40	
		14	27.85	390.0	108.00	21.06	
						203.56	
Corn	Amarillo, Texas	28	23.42	655.8	122.70 <sup>1/</sup>	40.23	
		28	29.17	816.7	125.78	51.36	
		28	27.39	767.1	124.85	47.89	
		28	29.10	814.9	115.65	47.12	
		12	27.50	330.0	112.63	18.58	
							205.18
Corn	MAFES South Mississippi Branch	28	42.06	1177.7	35.77	19.89	
		29	52.36	1518.4	33.16	25.18	
		27	53.17	1435.6	33.18	23.82	
		28	49.43	1384.0	32.81	22.70	
		34	47.00	1598.0	32.01	25.58	
					117.17		
Milo	Amarillo, Texas	28	24.34	681.7	114.38 <sup>1/</sup>	38.99	
		28	29.12	815.4	115.12	46.93	
		28	27.51	776.4	114.22	43.99	
		28	29.34	821.6	106.43	43.72	
		12	25.9	310.8	104.26	16.20	
					189.83		

<sup>1/</sup> Includes \$15/ton for management services.

Appendix A, Table 7. Summary of feed consumption by years, by diet and location, for steers finished in Mississippi and Texas, 1980-1982

Year	Diet and Location				
	Corn		Milo		Silage
	Brown Loam	South MS	Texas	Texas	South MS
1980	3158.7	3002.6	2859.9	30633	7584.0
1981	2065.7	2800.5	2443.2	2369.7	5839.0
1982	<u>3494.1</u>	<u>3301.4</u>	<u>3384.5</u>	<u>3399.9</u>	<u>7113.7</u>
Total	8718.5	9104.5	8687.6	8832.9	20536.7
Average	2906.2	3034.8	2895.9	2944.3	6845.6

----- lbs. -----

**Appendix B:**  
**Summary Feeding Budgets**



Appendix B, Table 1. Summary budget (per head) for steers fed a corn finishing diet at the MAFES Brown Loam Branch, three-year averages, 1980-1982

Item	Unit	No.	Price	Total
<b>Income:</b>				
Steer Sale	lb	1,081.7	.62 <u>a/</u>	670.65
<b>Direct Expenses:</b>				
Feeder Purchase	lb	768	.63	483.84
Interest on Feeder	do\$	482.76	.05 <u>b/</u>	24.14
Feed	ton	1.45	122.63	174.82
Interest on Feed	do\$	174.82	.0125 <u>c/</u>	7.00
Utilities & Fuel	head	1	2.31 <u>d/</u>	2.31
Labor	hour	4.2	3.45 <u>d/</u>	14.49
Vet and Medicine	head	1	1.75 <u>e/</u>	1.75
Transportation and Marketing	head	1	7.50	7.50
Death Loss (1% of purchase)	do\$	482.76	.01	<u>4.82</u>
Total Direct Expenses				720.67
Net Returns Over Direct Expenses				-50.02
Facility and Equipment	head	1	23.51 <u>f/</u>	<u>23.51</u>
Net Returns Over All Expenses				-73.53

a/Steers were actually sold on a yield and grade basis.

b/Reflects a 15% interest rate for 4 months of use.

c/Reflects a 15% interest rate on the feed cost. The interest was charged at the end of each feeding period for the accumulated feed and interest charges.

d/Reflects data from [1]. The \$3.35 includes minimum wage, social security, etc.

e/Assumes worming (\$1.00) and implant (\$.75) at time steers are placed in the feedlot.

f/Approximated from an unpublished report by Laughlin, Ag. Economics Dept., MSU, 1981. Assuming 2 turns/yr (1000 head). See Appendix B, Table 1.

Appendix B, Table 2. Summary budget (per head) for steers fed a corn diet at the MAFES South Mississippi Branch, three-year averages, 1980-1982

Item	Unit	No.	Price	Total
<b>Income:</b>				
Steer Sale	lb	1,055.1	.606 <u>c/</u>	639.39
<b>Direct Expenses:</b>				
Feeder Purchase	lb	753	.63	474.39
Interest on Feeder	do1	472.50	.05 <u>b/</u>	23.62
Feed	ton	1.52	124.24	187.64
Interest on Feed	do1	187.64	.0125 <u>c/</u>	7.39
Utilities & Fuel	head	1	2.31 <u>d/</u>	2.31
Labor	hour	4.2	3.45 <u>d/</u>	14.49
Vet and Medicine	head	1	1.75 <u>e/</u>	1.75
Transportation and Marketing	head	1	7.50	7.50
Death Loss (1% of purchase)	head	472.50	.01	<u>4.73</u>
Total Expenses				723.82
Net Returns Over Direct Expenses				-84.43
Facility and Equipment	head	1	32.80 <u>f/</u>	<u>32.80</u>
Net Returns Over All Expenses				-117.23

a/Steers were actually sold on a yield and grade basis, with price converted to liveweight basis.

b/Reflects 15% interest charged for 4 months of use.

c/Reflects 15% interest charged on feed cost. Interest was charged at the beginning of each feeding period on accumulated feed and interest charges.

d/Reflects data from [1]. The \$3.35 includes minimum wage, social security, etc.

e/Assumes worming (\$1.00) and implant (\$.75) at time steers are placed in the feedlot.

f/Approximated from an unpublished report by Laughlin, Ag. Economics Dept., MSU, 1981. Assuming two turns/yr (1000 head). See Appendix B, Table 2.

Appendix B, Table 3. Summary budget (per head) for steers fed a corn diet at Amarillo, Texas, three-year averages, 1980-1982

Item	Unit	No.	Price	Total
Income:				
Steer Sale	lb	1,084.6	.62 <sup>a/</sup>	672.45
Direct Expenses:				
Feeder Purchase	lb	763	.63	480.69
Interest on Feeder	dol	480.00	.05 <sup>b/</sup>	24.00
Feed & Management	ton	1.43	131.41 <sup>c/</sup>	188.21
Interest on Feed	dol	188.21	.0125 <sup>d/</sup>	7.46
Vet and Medicine	head	1	3.00	3.00
Transportation	head	1	31.61	31.61
Death Loss (2% of feeder purchase)	dol	780.06	.02	<u>9.60</u>
Total Expenses				744.57
Net Returns Over All Expenses				-72.12

<sup>a/</sup> Steers were actually sold on a yield and grade basis, with price converted to liveweight basis.

<sup>b/</sup> Reflects 15% interest charged for 4 months of use.

<sup>c/</sup> Reflects \$15 ton for feeding services.

<sup>d/</sup> Reflects a 15% interest rate on the feed cost. The interest was charged at the end of each feeding period for the accumulated feed and interest charges.

Appendix B, Table 4. Summary budget (per head) for steers fed a milo diet at Amarillo, Texas, three-year averages, 1980-1982

Item	Unit	No.	Price	Total
Income:				
Steer Sale	lb	1,089.5	.614 <sup>a/</sup>	669.01
Direct Expenses:				
Feeder Purchase	lb	767	.63	483.21
Interest on Feeder	dol	482.14	.05 <sup>b/</sup>	24.10
Feed & Management	ton	1.49	120.68 <sup>c/</sup>	177.72
Interest on Feed	dol	177.72	.0125 <sup>d/</sup>	7.05
Vet and Medicine	head	1	3.00	3.00
Transportation	head	1	31.61	31.61
Death Loss (2% of feeder purchase)	dol.	482.14	.02	<u>9.64</u>
Total Expenses				736.33
Net Returns Over All Expenses				-67.32

<sup>a/</sup> Steers were actually sold on a yield and grade basis, with price converted to liveweight basis.

<sup>b/</sup> Reflects 15% interest charged for 4 months of use.

<sup>c/</sup> Includes \$15/ton for feeding services.

<sup>d/</sup> Reflects 15% interest on the feed cost. The interest was charged at the end of each feeding period for the accumulated feed and interest charges.

Appendix B, Table 5. Summary budget (per head) for steers fed a silage diet at the MAFES South Mississippi Branch, three-year averages, 1980-1982

Item	Unit	No.	Price	Total
<b>Income:</b>				
Steer Sale	lb	1,060.0	.597 <u>a/</u>	633.82
<b>Direct Expenses:</b>				
Feeder Purchase	lb	750	.63	472.50
Interest on Feeder	do1	472.50	.05 <u>b/</u>	23.62
Feed	ton	3.44	35.15	120.42
Interest on feed	do1	120.42	.0125 <u>b/</u>	4.30
Utilities & Fuel	head	1	2.31 <u>c/</u>	2.31
Labor	hour	4.2	3.45 <u>d/</u>	14.49
Vet and Medicine	head	1	1.75 <u>e/</u>	1.75
Transportation and Marketing	head	1	7.50	7.50
Death Loss (1% of purchase)	do1.	472.50	.01	<u>4.72</u>
Total Expenses				651.61
Net Returns Over Direct Expenses				-17.79
Facility and Equipment	head	1	37.31 <u>f/</u>	37.31
Net Returns Over All Expenses				-55.10

a/Steers were actually sold on a yield and grade basis, with price converted to liveweight basis.

b/Reflects 15% interest charged for 4 months of use.

c/Reflects a 15% interest rate on the feed cost. The interest was charged at the beginning of each feeding period on accumulated feed and interest charges.

d/Reflects data from [1]. The \$3.35 includes minimum wage, social security, etc.

e/Assumes worming (\$1.00) and implant (\$.75) at time steers are placed in the feedlot.

f/Approximated from an unpublished report by Laughlin, Ag. Economics Dept., MSU, 1981. Assuming two turns/yr (1000 head). See Appendix B, Table 3.

# **Appendix C: Cost of Feedlots**

Appendix C, Table 1. Construction and ownership costs of a dirt feedlot with concrete slab feeding area, 500 head capacity, 1980

Item	Amount \$	Expected life years	Repair cost % new cost	Avg. an. repair cost \$	11% amortized fixed cost	
					\$	%
<b>Facility:</b>						
(1) Lot fencing (1376/in. ft. @ \$1.85)	2,551.00	20	50	63.78	320.34	
(2) Concrete slab feeding apron (206' x 20' x two @ \$1.64/sq. ft.)	13,536.00	20	--	--	1,699.79	
(3) Pole-type shed w/metal roof (206' x 34' @ \$1.45/sq. ft.)	10,191.00	20	25	127.38	1,279.72	
<b>Cleaning Equipment:</b>						
(1) Tractor	9,974.00	10	75	748.05	1,693.60	
(2) Scraper blade	792.00	10	40	31.68	134.48	
(3) Frontend loader	2,347.00	10	40	93.88	398.52	
(4) Manure spreader	4,928.00	10	40	197.12	836.78	
<b>Feeding Equipment:</b>						
(1) Fence/line feed bunks 384 linear ft. @ 18.81/l. ft. 2/post & cable-installed	7,223.00	20	50	180.58	907.03	
(2) Mixer truck--BJM 900 mixer (320 cu. ft.) with load cells, mounted on 1980 Ford F700 truck with heavy duty equip.	24,641.00	10	50	1,232.05	4,184.08	
(3) Storage * feed mix building (25 x 50 metal)	14,081.00	20	25	1,760.01	1,768.23	
(4) 18" hammer mill-5h.p. motor (100 ft. augers)	4,342.00	10	50	217.10	737.28	
(5) 2 holding bins w/auger loaders, fan & heater--300 bu. capacity each	10,744.00	10	25	268.60	1,824.35	
(6) Working, bins (2 bins--4 ton capacity--installed)	2,004.00	10	25	50.10	340.28	
<b>Working Barn:</b>						
(1) Metal roof structure (38' x 38') @ 4.08 sq. ft.	5,896.00	20	25	73.70	740.39	
(2) Pen fencing (210 linear ft.) @ 7.04/l. ft.	1,478.00	20	25	18.48	185.60	
(3) Working chute (manual)	1,056.00	10	25	26.40	179.31	
(4) Storage	1,173.00	20	25	14.66	147.30	
<b>Water:</b>						
(1) Water well (4" well, 500 ft. deep)	4,694.00	10	50	234.70	797.05	
Total	97,924.00	--	--	5,338.27	18,174.13	
	Amount/head <sup>a/</sup>				23.51	

<sup>a/</sup> Assumes two turns/year (1,000 head).

Appendix C, Table 2. Construction and ownership costs of a slatted-floor confinement feedlot (no silage feeding), 500 head capacity, 1980

Item	Amount	Expected life	Repair cost	Avg. an. repair cost	11% amortized fixed cost
	\$	years	% new cost	\$	\$
<b>Deep Pit:</b>					
(1) Pit consisting of foundation walls, floor & piers (68' x 136' x 8') @ 6.81/sq. ft.	63,046.00	20	25	788.08	7,917.04
(2) Slats & beams--9248 sq. ft. @ 4.18/sq. ft. (in place)	38,631.00	20	25	482.89	4,851.11
(3) Fencing pens (50 head pens)	11,611.00	20	50	290.28	1,458.06
(4) Lane fencing (360 linear ft.) @ 7.04/l. ft.	2,535.00	20	50	63.38	318.33
(5) Agitator pump (pto driven)	5,867.00	10	100	586.70	996.22
(6) Liquid spreader (1421 gal.)	6,072.00	10	100	607.20	1,031.03
(7) Roof structure (90' x 150' x 16" eaves) @ 4.08 sq. ft.	55,125.00	20	25	689.06	6,922.36
<b>Feeding Equipment:</b>					
(1) Fence/line feed bunks (272 linear ft.) @ 18.81/l. ft. w/post & cable installed	5,116.00	20	50	127.90	642.44
(2) Mixer truck--BJM 900 mixer (320 cu. ft.) with load cells, mounted on 1980 Ford F700 truck with heavy duty equipment	24,641.00	10	50	1,232.05	4,184.08
(3) Storage & feed building (25 x 50 metal)	14,081.00	20	25	176.01	1,768.23
(4) 18" hammer mill-5h.p. motor (100 ft. augers)	4,341.00	10	50	217.05	737.11
(5) 2 holding bins w/auger loaders, fan & heater--3,000 bu. capacity each	10,743.00	10	25	268.58	1,824.18
(6) Working, bins (2 bins-4 ton capacity-installed)	2,044.00	10	25	50.10	347.07
<b>Working Barn:</b>					
(1) Metal roof structures (38' x 38') @ 4.08 sq. ft.	5,896.00	20	25	73.70	740.39
(2) Pen fencing (210 linear ft.) @ 7.04/l. ft.	1,479.00	20	25	18.49	185.73
(3) Working chute (manual)	1,056.00	10	25	26.40	179.31
(4) Storage	1,173.00	20	25	14.66	147.30
<b>Water:</b>					
(1) Water well (4" well, 500 ft. deep)	4,694.00	10	50	234.70	797.05
<b>Total</b>	<b>258,151.00</b>	--	--	<b>5,947.23</b>	<b>35,047.04</b>
	Amount/head <sup>a/</sup>				32.80

a/ Assumes 2½ turns/year (1,250 head).



Appendix C, Table 3. Construction and ownership costs of a slatted-floor confinement feedlot (with silage feeding), 500 head capacity, 1980

Item	Amount \$	Expected life years	Repair cost % new cost	Avg. an. repair cost \$	11% amortized fixed cost \$
<b>Deep Pit:</b>					
(1) Pit consisting of foundation, walls, floor & piers (68' x 136' x 8') @ 6.81/sq. ft. @ 4.18/sq. ft.	63,046.00	20	25	788.08	7,917.04
(2) Slats & beams--9248 sq. ft. @ 4.18/sq. ft. (in place)	38,631.00	20	25	482.89	4,851.11
(3) Fencing pens (50 head pens)	11,611.00	20	50	290.28	1,458.06
(4) Lane fencing (360 linear ft.) @ 7.04/l. ft.	2,535.00	20	50	63.38	318.33
(5) Agitator pump (pto driven)	5,867.00	10	100	586.70	996.22
(6) Liquid spreader (1421 gal.)	6,072.00	10	100	607.20	1,031.03
(7) Roof structure (90' x 150' x 16" eaves) @ 4.08 sq. ft.	55,125.00	20	25	689.06	6,922.36
<b>Feeding Equipment:</b>					
(1) Fenceline feed bunks (272 linear ft.) @ 18.81/l. ft. w/post and cable-installed	5,116.00	20	50	127.90	642.44
(2) Mixer truck--BJM 900 mixer (320 cu. ft.) with load cells, mounted on 1980 Ford F700 truck with heavy duty equipment	24,641.00	10	50	1,232.05	4,184.08
(3) Silage loader-bunker type (pto driven)	6,454.00	10	100	645.40	1,095.90
(4) Storage & feed building (25 x 50 metal)	14,081.00	20	25	176.01	1,768.23
(5) 18" hammermill-5h.p. motor (100 ft. augers)	4,341.00	10	50	217.05	737.11
(6) 2 holding bins w/auger loaders, fan & heater--3000 bu. capacity each	10,743.00	10	25	268.58	1,824.18
(7) Working, bins (2 bins-4 ton capacity-installed)	2,044.00	10	25	50.10	347.07
<b>Bunker Silo:</b>					
(1) 8 ft. side walls (lumber & piling) 6" concrete slab floor--(150' x 60' x 8'--capacity 2,600 tons)	28,288.00	20	25	353.60	3,552.28
<b>Working Barn:</b>					
(1) Metal roof structures (38' x 38') @ 4.08 sq. ft.	5,895.00	20	25	73.70	740.39
(2) Pen fencing (210 linear ft.) @ 7.04/l. ft.	1,479.00	20	25	18.49	185.73
(3) Working chute (manual)	1,056.00	10	25	26.40	179.31
(4) Storage	1,173.00	20	25	14.66	147.30
<b>Water:</b>					
(1) Water well (4" well, 500 ft. deep)	4,694.00	10	50	234.70	797.05
<b>Total</b>	<b>292,893.00</b>	--	--	<b>6,946.23</b>	<b>39,695.22</b>
	<b>Amount/head<sup>a/</sup></b>				<b>37.31</b>

a/ Assumes 2 1/2 turns/year (1,250 head).

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*In conformity with Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, Joyce B. Giglioni, Assistant to the President, 610 Allen Hall, P. O. Drawer J, Mississippi State, Mississippi 39762, office telephone number 325-3221, has been designated as the responsible employee to coordinate efforts to carry out responsibilities and make investigation of complaints relating to discrimination.*